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Metacognitive listening strategies awareness in learning English as a foreign language: a comparison between university and high-school students

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Abstract

The present study investigated metacognitive listening strategies awareness among Iranian university and high-school students learning English as a foreign language. To achieve this goal, one hundred and twenty-two university students and one hundred and sixteen high-school students filled in the Metacognitive Awareness Listening Questionnaire (MALQ) with five subparts including problem-solving, planning and evaluation, translation, person knowledge, and directed attention. The result of the data analysis revealed that university and high-school students were different with regard to their metacognitive listening strategies awareness in general, and in person knowledge and mental translation components.

Keywords:Metacognitive, listening,strategies, EFL;

1. Introduction

Metacognition has been defined as a construct that refers to thinking about one's thinking or the human ability to be conscious of one's mental processes (Nelson, 1996). Wenden (1998) defines metacognition as knowledge about learning that is a part of a learner's store of acquired knowledge and consists of a system of related ideas, relatively stable, early developing and an abstraction of a learners' experience. According to Flavell (1976) metacognitive knowledge is "one's knowledge concerning one's own cognitive processes and products or anything related to them, e.g., the learning-relevant properties of information or data" (p. 232). It is argued that metacognition is a form of cognition and a high level thinking process that involves active control over cognitive processes (Wenden, 1998). Therefore, metacognitive knowledge is considered as the 'seventh sense' and one of the mental characteristics that successful learners use (Birjandi, 2006). In fact, successful learners are aware of their learning process and the use of different strategies that meet the requirements of different learning tasks and situations.

Brown (1981) argued that there are two kinds of metacognitive knowledge -static and strategic. Static knowledge is the verbalisable things people state about cognition, while strategic knowledge, by comparison, is the steps individuals take to regulate and modify the progress of a cognitive activity as it is occurring. Moreover, Flavell (1976) classifies metacognitive knowledge according to whether it focuses on the learner, the learning task or the

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process of learning. This tripartite competence includes the person knowledge, i.e., the knowledge a person has about himself or herself and others as cognitive processors; task knowledge, i.e., the knowledge a person has about the information and resources they need to undertake a task; and the strategy knowledge. i.e., the knowledge regarding the strategies which are likely to be effective in achieving goals and undertaking tasks (Flavell, 1976).

As noted in Brown et al. (1983), metacognitive knowledge and metacognitive strategies are two distinct components of the term metacognition. Metacognitive knowledge refers to information learners acquire about their learning, while metacognitive strategies are general skills through which learners manage, direct, regulate, and guide their learning. The basic metacognitive strategies include connecting new information to the old one, selecting deliberate thinking strategies, planning, monitoring, and evaluating thinking processes (Oxford, 2002). They help learners regulate and oversee learning activities such as taking conscious control of learning, planning and selecting strategies, monitoring the process of learning, correcting errors, analyzing the effectiveness of learning strategies, and changing learning behaviors and strategies when necessary (Ridley et al., 1992).

1.1. Metacognitive knowledge and language learning

Many research studies have focused on finding the role of metacognitive awareness in students' learning outcome and achievement in different school subjects. There is extensive evidence that learners' metacognition can directly affect the process and the outcome of their learning (Boekaerts, Pintrich, and Zeidner, 2000; Bolitho et al., 2003; Eilam and Aharon, 2003; Mokhtari and Reichard, 2002; Palmer and Goetz, 1988; Victori and Lockhart, 1995; Zimmerman and Schunk, 2001).

Within the realm of language teaching one string of study has focused on finding the role metacognitive knowledge plays in determining the effectiveness of individuals' attempts to learn another language. According to Flavell (1979), the effective role of metacognitive knowledge in many cognitive activities related to language use is conspicuous, e.g., oral communication of information, oral persuasion, oral comprehension, reading comprehension, and writing, to language acquisition, and to various types of self-instruction. In line with this, researchers have tried to specify the characteristics of good language learners and the type of strategies they use in a specific language task (Birjandi et al, 2006). It has been found that explicit metacognitive knowledge about task characteristics and applying appropriate strategies for task solution is a major determiner of language learning effectiveness (Mahmoudi et al., 2010). The reason lies in the fact that metacognitive strategies enable learners to play active role in the process of learning, to manage and direct their own learning and eventually to find the best ways to practice and reinforce what they have learned (Chari et al., 2010). This puts them in a privileged position to process and store new information and leads to better test performance, learning outcome, and better achievement (Mokhtari et al., 2002; Zimmerman et al., 2001). Moreover, the literature reviewed notes that metacognitive knowledge characterizes the approach of expert learners to learning (Baker and Brown, 1984; Nickerson et al., 1985; Wong, 1986), it enhances learning outcomes (Dickinson, 1995; Zimmerman, 1989; Zimmerman and Bahdura, 1994); facilitates information recall (Flavell as cited in Nickerson et al., 1985), comprehension of written texts (Brown et al., 1986, Schommer, 1990), and the completion of new types of learning tasks (Vann and Abraham 1990); and improves the rate of progress in learning (Victori and Lockart, 1995) and the quality and speed of learners' cognitive engagement (Pintrich et al., 1993).

Some other studies have focused on what proficient and successful language learners do while reading, writing, speaking, and listening with regard to the type of strategies they use, and how and under what conditions they use those strategies. The findings of these studies support the fact that proficient language learners take conscious steps to understand what they are doing by using a wider range of strategies than less proficient learners do (Anderson, 2003; Rasekh et al., 2003). Similar findings have also been reported in a number of studies for second language listeners (Goh 1998, 1999; O'Maley, Chamot and Küpper 1989; Vandergrift 1996, 1997; Young 1997). It has also been found that high degrees of metacognitive knowledge help language learners to be better at processing and storing new information, finding the best ways to practice and reinforce what they have learned (Vandergrift et al.,

2006) and it plays an important role in enhancing thinking and comprehension (Costa, 2001; Sternberg, 1998; Wenden, 1998).

1.2. Metacognitive listening strategies awareness

Metacognitive awareness of listening can be defined as learners' cognitive appraisal or the metacognitive knowledge of their perceptions about themselves, their understanding of listening demands, their cognitive goals, and their approach to the task and their strategies (Vandergrift et al., 2006). These strategies include five types of strategies, i.e., problem-solving, planning and evaluation, mental translation, person knowledge, and directed attention.

Problem-solving includes a group of strategies listeners use to make inferences (guess) and to monitor these inferences. Planning and evaluation strategies are those types of strategies that listeners use to prepare themselves for listening and to evaluate the results of their listening efforts (Richards, 1990). Mental translations are those strategies that listeners must learn to avoid if they are to become skilled listeners (Vandergrift, 2003). Person knowledge strategies include listeners' perceptions concerning the difficulty presented by L2 listening and their self-efficacy in L2 listening such as assessing the perceived difficulty of listening and learners' linguistic confidence in L2 listening (Sparks and Ganschow, 2001). Directed attention represents strategies that listeners use to concentrate and to stay on task such as getting back on track when losing concentration or focusing harder when having difficulty understanding (Rost, 2002).

The importance of metacognitive listening strategies awareness has been proved in literature. The focus on L2 listening was initially on the use of strategies for listening comprehension (Rubin, 1994). Many studies focused on L2 learner's use of metacognitive strategies for coping with difficulties and facilitating comprehension (Bacon, 1992; Goh, 1998; Mareschal, 2002; O'Malley and Chamot, 1990; Vandergrift, 1997, 2003). In recent years learners' cognitive appraisal and metacognitive knowledge has been the predominant field in listening strategy research (Vandergrift et al., 2006).

The efficiency of metacognitive listening strategies awareness on learning has been investigated in many research studies. Goh (2000), for instance, found that more skilled listeners demonstrated a higher degree of awareness of their listening problems. Vandergrift (2005) investigated the relationship between metacognition, motivation and listening proficiency and found an interesting pattern of increasingly higher correlations among the three levels of motivation (motivation, extrinsic motivation, and intrinsic motivation) and reported use of metacognitive strategies. Vandergrift (2007) also found a causal relationship between metacognitive instruction and statistically significant improvement in listening performance. Some studies in the EFL context have also investigated the relationship between metacognitive listening strategies awareness and language proficiency (Shirani Bidabadi and Yamat, 2011), motivation (Sutudenama and Taghipur, 2010), learning style (ShiraniBidabadi and Yamat, 2010), and gender (Rahimi and Katal, 2011). However, there is a dearth of research on the relationship between metacognitive listening strategies awareness and educational level. Therefore, the goal of the present study is to compare the metacognitive listening strategies awareness of university and high-school students.

2. Method

2.1. Participants

Participants of the present study consisted of 122 university students with different majors and 116 high school students who were selected randomly from students of three universities and three high-schools in Tehran.

2.2. Instrument

In order to gather the required data, Metacognitive Awareness Listening Questionnaire (MALQ) (Vandergrift, et al., 2006) was used. The questionnaire contains 21 items that assesses language learners' awareness and perceived

use of listening strategies. Each item is rated on a six-point Likert scale rating from 1 (strongly disagree) to 6 (strongly agree) without a neutral point so that respondents could not hedge.

MALQ consists of five factors including problem-solving (6 items), planning and evaluation (5 items), mental translation (3 items), person knowledge (3 items), and directed attention (4 items). In order to explore the factor structure of the questionnaire, the developers have used both exploratory and confirmatory analysis using different foreign language learners including Iranians. The reliability of the subscales has been reported by Cronbach's alpha to be 0.74 for problem solving, 0.75 for planning and evaluation, 0.78 for translation, 0.74 for person knowledge, and 0.68 for directed attention respectively. The reliability coefficient of MALQ in this study was estimated to be .86.

3. Results

3.1. Level of metacognitive listening strategies awareness

Table 1 summarized 238 university and high-school students' means, standard deviations and per item averages (i.e. mean/items) on MALQ and its subsections. The average score in MALQ was 4.14 while each item was measured by a 6-likert scale, implying that students in overall had a medium level of metacognitive listening strategies awareness. Further, the mean of MALQ subscales ranged from 2.56 to 4.44, implying the highest level of metacognitive awareness for problems solving strategy and the lowest level of awareness for person knowledge strategy.

Table 1- Distribution of mean scores on MALQ and its subparts (n=238)

Scale	Number of items	Possible range	Mean	SD	Average per item
Problem solving	6	6-36	26.68	5.37	4.44
Planning and evaluation	5	5-30	20.48	4.32	4.09
Mental translation	3	3-15	10.13	3.83	3.37
Person knowledge	4	4-20	10.25	2.84	2.56
Directed attention	4	4-20	15.80	3.87	3.96
MALQ	21	21-144	87.12	13.98	4.14

3.2. Metacognitive listening strategies awareness and educational level

In order to compare participants' overall means on MALQ, an independent-samples t-test was conducted. There was a significant difference in MALQ scores for high-school (M=90.98, SD=13.37) and university students (M=83.45, SD=13.61); t (236) = 4.301, p=.000). The magnitude of the differences in the means (mean difference= 7.52, 95% CI: -4.077 to 4.075) was sizeable (eta square= .072).

Further, a one way MANOVA was performed to investigate the role of educational level in MALQ subsections. Five independent variables were metacognitive listening strategies including problem solving, directed attention, person knowledge, mental translation, and planning evaluation. Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multicollinearity, with no serious violations noted.

The result revealed a significant multivariate main effect for group on the combined variables (Wilks' λ = .766, F =14.210, p=0.000, and partial eta squared = .234). When the results for the dependent variables were considered separately, two differences reached statistical significance, using a Bonferroni adjusted alpha of .017, including mental translation and person knowledge (table 2).

Table 2. Tests of Between-Subjects Effects

Dependent Variable	Sum of Squares	*df*	Mean Square	*F*	*p*	Partial Eta Squared
Problem solving	63.773	1	63.773	2.373	.125	.010
Directed attention	25.634	1	25.634	1.792	.182	.008
Person knowledge	309.212	1	309.212	36.782	.000*	.135
Mental translation	364.280	1	364.280	30.119	.000*	.113
Planning evaluation	43.440	1	43.440	2.380	.124	.010

An inspection of the mean scores indicated that high-school students were more aware of their metacognitive listening strategies in terms of person knowledge and mental translation (table 3).

Table 3. Descriptive statistics for person knowledge and mental translation

Variables	Education	Mean	SD	N
Person knowledge	University	10.2541	2.84463	122
	High-school	12.5345	2.95600	116
	Total	11.3655	3.11062	238
Mental translation	University	10.3525	3.71933	122
	High-school	12.8276	3.20401	116
	Total	11.5588	3.68523	238

4. Discussion

This study investigated the level of metacognitive listening strategies awareness in learning English as a foreign language among Iranian university and high-school students. The result of the study revealed that in general students' level of metacognitive listening strategy awareness is satisfactory. This finding is in line with the findings of other studies that showed that Iranian students have high metacognitive awareness in general (Pishghadam, 2009; Lachini, 1997; Tajedin, 2001; Akbari, 2003) and in listening strategies (Rahimi and katal, 2010; ShiraniBidabadi and Yamat, 2010, 2011) as well as other skills such as reading (Mahmoudi and Khonamri, 2010) and vocabulary (Chari, Samavi and Kordestani, 2010) in particular.

Moreover, in-depth analysis of factors in MALQ factors revealed that students are more aware of problem solving strategies than other strategy types. This finding shows that Iranian students commonly use known words and the general idea of a text to deduce the meaning of unknown words, use their experience and general knowledge in interpreting the text, adjust their interpretation upon realizing that it is not correct, monitor the accuracy of the inferences for congruency with the developing interpretation, and compare the developing interpretation with their knowledge of the topic (Vandergrift, et al., 2006).

However, it was also found that Iranian students' are not aware of their person knowledge strategies. Person knowledge refers to students' self-efficacy and ability to assess the perceived difficulty of the learning tasks. This supports the fact that metacognitive knowledge and self-efficacy are closely related (Vandergrift, 2005). This finding of the study can be explained by considering the fact that it rarely happens that Iranian students have a chance to evaluate their own strengths with the given task in the language classes because most of the time language courses in Iran focus on traditional techniques and teacher-centered methods (Rahimi and Nabilou, 2009). Therefore, the concepts of self-assessment, self-awareness, and peer-assessment have not been truly expanded among Iranian students, while the essence of most practices to improve metacognitive skills is to engage students in

collaborative activities such as peer assessments, collective reflection, and modeling metacognitive processes (Choi, Land, and Turgeon, 2005). As having students to plan, monitor and reflect on their work could be applied to foster metacognitive thinking and development, the need of reform in EFL curriculum in Iran is highlighted by this finding.

It was also found that high-school students were more aware of their metacognitive listening strategies in general in comparison to university students. This shows that unlike other studies (Vandergrift, 2005) the level of metacognitive awareness across age groups is different. This difference can be attributed to students' motivation (Vandergrift, 2003), self-efficacy (Vandergrift, 2005), and language listening skillfulness (Vandergrift, 2003). However, more research is required to shed light on the relationship between age and metacognition.

Furthermore, high-school students showed higher awareness in mental translation and person knowledge strategies. This is in line with findings of other researchers (Sutudenama and Taghipour, 2010, Vandergrift, 2003, Rahimi and Katal, 2010) that students of different levels with different abilities have significantly different metacognitive listening strategies awareness. This also shows that older Iranian students are less aware of their perceived difficulty of listening compared with the three other language skills, they are less linguistically confident in L2 listening, and their level of anxiety in L2 listening is higher (Sparks & Ganschow, 2001). They were also found to use mental translation strategies less than high-school students do. These strategies represent an inefficient approach to listening comprehension that most often beginning-level listeners use (Eastman, 1991) by involving themselves in direct translation. So maybe as a result of more advanced instruction, university students have become more aware of the inefficiency of these strategies and therefore avoid them.

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